

CLAIMS

1. A closure for fixing to an open end of a container body,

the closure comprising a diaphragm bonded to an annular component,

the diaphragm having a centre panel which includes at least one concentric bead such that when the closure is fixed to a container and subjected to pressure differentials, the diaphragm is deflectable outwardly to give an increase in container volume,

and in which the profile of the diaphragm beaded panel is selected so that its downward form extends at most to the lowest plane of the annular component.

2. A closure according to claim 1, in which the maximum upward displacement of the diaphragm is no greater than the height of a seaming panel of the annular component.

3. A closure according to claim 1 or claim 2, in which the diaphragm is bonded to a panel of the annular component, and that bonding panel extends in a first direction at an angle of 10° to 20° to the horizontal.

4. A closure according to any one of claims 1 to 3, in which the annular component is a metal ring adapted for seaming to a metal can body.

5. The combination of the closure of claims 1 to 4 and a cylindrical container having a side wall height which is less than the diameter of the container.

6. A method of controlling in-can pressure during thermal processing, comprising:

bonding a panel to an inclined seal surface of an annular component;

stretching the panel;

fixing the annular component and panel bonded thereto to a filled can;

processing the contents of the filled and closed can by heating to temperatures of up to 135°C; and

providing, at least during the processing step, a generally dome shaped profile to the panel so as to provide an increase in can volume approximately equal to thermal expansion of the contents and gases in any headspace within the can.

7. A method according to claim 6, further comprising stretching the panel into a beaded profile which matches the fibre length of the generally domed shaped profile provided during thermal processing.

8. A method according to claim 6 or claim 7, in which the inclined seal surface of the annular component is initially at an angle of from 10° to 60°, and the method further comprises reforming the seal surface to a shallower angle, or 0° after the processing step.